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AKZO NOBEL INC. LEGAL & IP 120 WHITE PLAINS ROAD, SUITE 300 TARRYTOWN, NY 10591			EXAMINER PADEN, CAROLYN A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/537,199  
Filing Date: June 02, 2005  
Appellant(s): THEEUWEN ET AL.

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Ralph Mancini  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed February 17, 2007 appealing from the Office action mailed May 16, 2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,593,468	Lange	2003
3,418,133	Nijhoff	1968
3,928,252	Rigler	1975

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lange in view of Nijhoff and Rigler.

Lange discloses a carboxymethyl cellulose (CMC) and method of making said CMC that exhibits improved absorbent properties without the use of toxins (Column 2, lines 40-47). Lange's CMC can be used for food, cosmetics and pharmaceuticals (Column 2, lines 59-64). Applicant admits at the bottom of page 3 of his specification that the CMC used in his invention is disclosed in WO99/20657, which is the International version of this US Patent to Lange. Further, Lange's viscoelastic properties are measured by at 25° C and show a CMC that is a gel with an elastic component  $G'$  that is greater than the viscous component  $G''$  over a frequency range of 0.1 to 102 Hz (Column 11, lines 16-24; Figure 5). Lange's CMC which may be prepared from pinewood or linters cellulose, as required in claim 5, contains cellulose or cellulose mixtures which have a DP of >1000 as required in claim 4, and an average degree of substitution (DS) between 0.2-1.5 as required in claim 6 (Column 3, lines 50-57; Column 4, lines 42-67). CMC formed a gel in sodium chloride solutions (see Table 1 and Table 3). Lange discloses that other mixtures may be used as a suspension media and the CMC may be combined with an alginate, a starch or other natural polymers, as required in claim 8 (Column 6, lines 9-23). Lange discloses that the final product has a high

viscosity. The viscosity, required in claim 2, is shown in Table 1. One of ordinary skill in the art would expect the CMC product qualities of Lange would fall within the range of the claimed CMC product qualities because Lange is using the same CMC of the claims, as admitted by applicant. Lange contemplates the use of CMC in food applications for use "as a super absorbent material and as an adjuvant substance for achieving suitable rheological and water retention properties" (column 1, lines 18-25). The claims are directed to a particular CMC that is used in fruit-based products. In this case the fruit-based product is a preamble limitation that has limited weight in the product claim because the balance of the claim is directed to the properties of the CMC. Nevertheless, the claims appear to differ from Lange in the recitation of the Lange's CMC in a fruit based product.

Nijhoff teaches preparing an edible spread from water, an alkali metal salt and CMC (Column 1, lines 30-47). The edible spread is made with CMC salts that may have a DS of 0.6 to 1 (Example 6). In Table 1 Nijhoff illustrates the correlation between viscosity and DS. Rigler prepares a food thickener from sodium carboxymethylcellulose in the presence of a halogen such as sodium chloride (Column 2, lines 25-35; Example I).

Complete solubilization of the CMC is effected over high-speed mechanical stirring and effective results are obtained over a wide pH range of 2.4 to 12.6 in both hot and cold media (Column 3, line 66-Column 4, line 38). The viscosity of Rigler's thickener varies depending upon the differing medias used. Rigler's thickener may be used in a variety of foods, such as glazes, gravies, jams and jellies (Column 11, line 45-51). The references of Rigler and Nijhoff, when taken together show that it is known in the art to use CMC in fruit based spreads. Given the teaches of the secondary reference to Rigler and Nijhoff, it would have been obvious to one of ordinary skill in the art to use the CMC of Lange in the spreads and thickened foods of Rigler as an obvious alternative CMC in a food application requiring a super absorbent CMC with water retention properties, such as a spread.

#### **(10) Response to Argument**

Appellant argues that Lange does not apply his CMC to fruit-based products. This has been considered but is not persuasive. Lange provides for CMC in foods. The fact that fruit-based spreads were not specifically mentioned as a food is not alone seen to constitute unobviousness. Appellant argues that the secondary reference to Rigler does not proved for the shear conditions set for in the claims. This has been considered but is

not persuasive. The high shear conditions of claims 1 and 2 refer to properties of the CMC, which Appellant admits is disclosed by Lange. Rigler is relied upon to show applications of CMC to foods, liked thickened foods and fruit-based spreads. The fact that Rigler does not use Lange's CMC is not seen to constitute unobviousness.

Appellant argues that Nijhoff's CMC is not the same as applicants'. This has been considered but is not persuasive. Nijhoff is relied upon to show the use of CMC in fruit based spreads. Lange shows the advantages of using a particular CMC to improve the water retention in foods and other products. The fact that Nijhoff used a different CMC is not alone seen to constitute unobviousness. Lange, in particular, teaches that his CMC permits the use of less CMC in applications (column 3, lines 24-27). Appellant urges that the prior art teaches away from the use of CMC in fruit-based products because of insufficient gelling. This has been considered but is not persuasive. Nijhoff showed some examples of successful spreads in Examples 5 and 6. Nijhoff further illustrates that it is known in the art to survey a variety of CMC compositions to achieve optimal results. Lange teaches the advantages of CMC in products requiring a super absorbent material with water retention properties"



(column 1, lines 18-25). One of ordinary skill in the art would be led to use CMC in view of the disclosures of Lange in view of Nijhoff.

Appellant argues that it is improper to view the secondary references as suggesting that all CMCs would work in fruit based products. This has been considered but is not persuasive. Lange teaches the use of his particular CMC for applications requiring a super absorbent material with water retention properties (column 1, lines 18-25). One of ordinary skill in the art would be led to use CMC in fruit based products because fruit based spreads require a lot of water retention. Appellant argues that the rejection relies on hindsight but one of ordinary skill in the art of CMC applications would be expected to be aware of the various successful and unsuccessful applications of CMC in foods. Appellant urges that the Lange disclosure is too broad. CMC has a well known use in foods. One of ordinary skill in the art would be expected to look at the advantages of the CMC of Lange and be led to the application of this CMC in fruit-based spread.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Carolyn Paden/

Conferees:

/KEITH D. HENDRICKS/  
Supervisory Patent Examiner, Art Unit 1794

/Stanley Silverman/  
Supervisory Patent Examiner, Art Unit 1793

Stanley Silverman